

WHAT IS CLAIMED IS:

1. A millimeter-wave passive FET switch, comprising a signal line, an FET, an impedance transformation network, wherein a gate of said FET is connected with a voltage for controlling the impedance
5 between a drain and a source of said FET, said drain and said source are series connected with said impedance transformation network, and then parallel connected or series connected with said signal line.
2. The switch according to claim 1, wherein said impedance transformation network is a combination of transmission lines.
- 10 3. The switch according to claims 1, 2, wherein said impedance transformation network is designed to make as good as possible that the equivalent impedance of said switch contains no reactance.
4. The switch according to claim 3, wherein said impedance transformation network is designed to make the off-state effective
15 high capacitance of said FET in high frequency become low impedance, while the on-state low impedance of said FET in high frequency become high impedance.

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